Please delete the paragraph beginning at page 9, line 4 and replace it with the following:

Fig. 4A shows an alternative of the circuit of Fig. 1A. This simpler circuit does not protect against overcurrents. Elements T1, Th1, Th2, T1′, Th1′, Th2′ reappear therein. The difference with Fig. 1A is that the gates of anode-gate thyristor Th2 and cathode-gate thyristor Th1 are neither interconnected, nor connected to terminal L1B which does not exist, resistor R1 being absent.

IN THE CLAIMS

Please amend claims 1-5 to read as follows. Marked-up copies of the amended claims are enclosed.

1. (Amended) A monolithic component protecting a line against overvoltages greater than a determined positive threshold or lower than a determined negative threshold, including in antiparallel a cathode-gate thyristor and an anode-gate thyristor connected between a first terminal of the line to be protected and a reference voltage, the gate of the cathode-gate thyristor being connected to a negative threshold voltage via a gate current amplification transistor, the gate of the anode-gate thyristor being connected to a positive threshold voltage, characterized in that:

- the monolithic component is made in a substrate of a first conductivity type divided into wells separated by isolating walls, lower surfaces of which are coated with insulating layers, a lower surface of the substrate being uniformly coated with a lower surface metallization,
- the gate current amplification transistor of the cathode-gate thyristor is made in vertical form in a first well,
- the cathode-gate thyristor is implemented in vertical form in a second well,
- the lower surface metallization links up the collector of the transistor, the anode of the cathode-gate thyristor, and the cathode of the anode-gate thyristor,
- a first front surface metallization connects the cathode of the cathode-gate thyristor to the anode of the anode-gate thyristor,

- a second front surface metallization connects the gate of the cathode-gate thyristor to the emitter of the transistor, and
- a third front surface metallization is in contact with the gate of the anode-gate thyristor.

2. (Amended) The component of claim 1, further including a diode, the anode of which is connected to the gate of the anode-gate thyristor, characterized in that the diode is implemented in the form of a P-type region itself formed in an N-type region, the latter being formed in the cathode-gate region of the anode-gate thyristor, on the upper surface side of the component.

3. (Amended) The component of claim 1, wherein the gate of the cathode-gate thyristor is connected to a second terminal of the line to be protected.

4. (Amended) The component of claim 1, further ensuring a protective function against overcurrents, in which the gates of the cathode-gate and anode-gate thyristors are interconnected and connected to a second terminal of the line to be protected.

5. (Amended) The component of claim 4, further including a gate current amplification transistor associated with the anode-gate thyristor, characterized in that this transistor, of PNP type, is formed on the upper surface of the component, a collector region extending via isolating walls towards the lower surface and being in contact with the lower surface metallization.

Please add the following new claims:

6. (New) A monolithic component for protecting a line against overvoltages, comprising:

a substrate of a first conductivity type divided into wells separated by isolating walls, lower surfaces of which are coated with insulating layers;

a first gate current amplification transistor fabricated in vertical form in a first well in the substrate;

a cathode-gate thyristor fabricated in vertical form in a second well in the substrate;

an anode-gate thyristor fabricated in vertical form in a third well in the substrate;

a lower surface metallization connecting the collector of the transistor, the anode of the cathode-gate thyristor, and the cathode of the anode-gate thyristor;

a first front surface metallization connecting the cathode of the cathode-gate thyristor to the anode of the anode-gate thyristor; and

a second front surface metallization connecting the gate of the cathode-gate thyristor to the emitter of the transistor.

7. (New) A monolithic component as defined in claim 6, further comprising a third front surface metallization in contact with the gate of the anode-gate thyristor.

8. (New) A monolithic component as defined in claim 6, further comprising a diode, an anode of which is connected to the gate of the anode-gate thyristor.

9. (New) A monolithic component as defined in claim 8, wherein the diode is implemented as a P-type region formed in an N-type region, the N-type region being formed in the cathode-gate region of the anode-gate thyristor on the front surface of the substrate.

10. (New) A monolithic component as defined in claim 6, further comprising a second gate current amplification transistor associated with the anode-gate thyristor.

11. (New) A monolithic component as defined in claim 10, wherein the second transistor is formed on the front surface of the substrate, a collector region of the second transistor extending via isolating walls toward the lower surface and being in contact with the lower surface metallization.

12. (New) A monolithic component as defined in claim 6, wherein the cathode-gate thyristor and the anode-gate thyristor are connected in antiparallel between a first terminal of the line to be protected and a reference voltage, the gate of the cathode-gate thyristor being connected to a

negative threshold voltage via the first gate current amplification transistor and the gate of the anode-gate thyristor being connected to a positive threshold voltage.

13. (New) A monolithic component as defined in claim 12, wherein the gate of the cathode-gate thyristor is adapted for connection to a second terminal of the line to be protected.

14. (New) A monolithic component as defined in claim 12, wherein the gates of the cathode-gate and anode-gate thyristors are interconnected and are configured for a connection to a second terminal of the line to be protected.

15. (New) A method for fabricating a monolithic component, comprising:

dividing a substrate of a first conductivity type into wells separated by isolating walls;

coating lower surfaces of the isolating walls with insulating layers;

fabricating a first gate current amplification transistor in vertical form in a first well in the substrate;

fabricating a cathode-gate thyristor in vertical form in a second well in the substrate;

fabricating an anode-gate thyristor in vertical form in a third well in the substrate;

connecting the collector of the transistor, the anode of the cathode-gate thyristor, and the cathode of the anode-gate thyristor with a lower surface metallization;

connecting the cathode of the cathode-gate thyristor to the anode of the anode-gate thyristor with a first front surface metallization; and

connecting the gate of the cathode-gate thyristor to the emitter of the transistor with a second front surface metallization.

16. (New) A method as defined in claim 15, further comprising providing a third front surface metallization in contact with the gate of the anode-gate thyristor.

17. (New) A method as defined in claim 15, further comprising fabricating a diode in the substrate, the anode of which is connected to the gate of the anode-gate thyristor.

18. (New) A method as defined in claim 17, wherein the diode is implemented by fabricating a P-type region in an N-type region, and fabricating the N-type region in the cathode-gate region of the anode-gate thyristor on the front surface of the substrate.

19. (New) A method as defined in claim 15, further comprising fabricating a second gate current amplification transistor in the substrate, wherein the second transistor is associated with the anode-gate thyristor.

20. (New) A method as defined in claim 19, wherein the second transistor is fabricated on the front surface of the substrate with a collector region of the second transistor extending via isolating walls toward the lower surface of the substrate and being in contact with the lower surface metallization.

21. (New) A method as defined in claim 15, further comprising connecting the cathode-gate thyristor and the anode-gate thyristor in antiparallel between a first terminal of the line to be protected and a reference voltage, connecting the gate of the cathode-gate thyristor to a negative threshold voltage via the first gate current amplification transistor, and connecting the gate of the anode-gate thyristor to a positive threshold voltage.

22. (New) A method as defined in claim 21, further comprising connecting the gate of the cathode-gate thyristor to a second terminal of the line to be protected.

23. (New) A method as defined in claim 21, further comprising connecting the gates of the cathode-gate and anode-gate thyristors to a second terminal of the line to be protected.

REMARKS

By this preliminary amendment, new claims 6-23 have been added and claims 1-5 have been amended. Accordingly, claims 1-23 are pending in the application. No new matter has been added.

In addition, the specification has been amended to correct obvious errors. In particular, most instances of "smaller" have been changed to "lower" to correct an apparent error in word selection. The reference characters T′1, Th′1 and Th′2 have been changed to T1′, Th1′ and Th2′, respectively, for consistency with the reference characters used in the drawings. No new matter has been added. Section headings have also been added.

The application is now ready for examination on the merits. If there are questions regarding this preliminary amendment, please contact Applicant's undersigned attorney.

Respectfully submitted,
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